A-4-c. Water Features Definitions

The Water Features report provides estimates of important water features used in land use planning that involves engineering considerations. Water features that are covered include hydrologic soil group, water table, ponding, and flooding.

The official copy of the Water Features report is located in an **Access** database and can be electronically created. The Access database is accessible by every NRCS Hawaii employee who uses Toolkit. Access database reports are also available via the following electronic Field Office Technical Guide (eFOTG) websites:
http://www.nrcs.usda.gov/technical/efotg/ or http://my.nrcs.usda.gov

Following is a definition of the features in the report:

Hydrologic Soil Groups

Soils with the same runoff potential are grouped into one of four Hydrologic Soil Groups. These groupings are used to estimate runoff from precipitation. Soils are assigned to one of four groups (See Section II-A-5-a, Cropland Interpretations for a detailed explanation of hydrologic soil groups).

High Water Table

This is a zone of saturation at the highest average depth during the specified months. It is at least 6 inches thick, persists in the soil for more than a few weeks, and is within 6 feet of the soil surface. The depth to a high water table applies to undrained soils. Soils that have a high water table are classified according to depth to the water table and time of year when the water table is highest.

Ponding

Ponding is standing water in a closed depression. The water is removed only by percolation, transpiration, or evaporation. Ponding of soils is classified according to depth of water over the soil surface, duration, and frequency.

Flooding

Flooding is the temporary covering of the soil surface by flowing water from any source such as streams overflowing their banks, runoff from adjacent slopes or surrounding slopes, inflow from high tides, or any combination of sources. Shallow water standing or flowing as local runoff for short periods after rain is not considered flooding. Standing water (ponding) in marshes and swamps or in a closed depression is excluded from the definition. Flooding frequency and duration are based on

interpretations of soil properties and other evidence gathered during soil survey fieldwork.

Flooding frequency is the number of times flooding occurs over a period of time and is expressed as follows:

None -- no reasonable possibility of flooding; near 0 percent chance of flooding in any year, or less than 1 time in 500 years.

Very Rare -- flooding is very unlikely but possible under extremely unusual weather conditions; less than 1 percent chance of flooding in any year, or less than 1 time in 100 years but more than 1 time in 500 years.

Rare --flooding unlikely but possible under unusual weather conditions; 1 to 5 percent chance of flooding in any year, or nearly 1 to 5 times in 100 years.

Occasional --flooding is expected infrequently under usual weather conditions; 5 to 50 percent chance of flooding in any year, or 5 to 50 times in 100 years.

Frequent -- flooding is likely to occur often under usual weather conditions; more than a 50 percent chance of flooding in any year, or more than 50 times in 100 years, but less than 50 percent chance of flooding in all months in any year.

Very frequent -- flooding is likely to occur very often under usual weather conditions; more than a 50 percent chance of flooding in all months of any year.

Flooding duration is the average length of time of inundation per flood occurrence. It is given only for occasional, frequent, and very frequent classes.

Extremely brief --0.1 to 4 hours

Very brief -- 4 to 48 hours

Brief -- 2 to 7 days

Long -- 7 to 30 days

Very long -- more than 30 days